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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,055	11/23/2005	Thierry Starck	40770-000166/US	6269

30593 7590 04/13/2007
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EXAMINER	
HE, AMY	
ART UNIT	**PAPER NUMBER**
2858	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/530,055	STARCK ET AL.	
	Examiner	Art Unit	
	Amy He	2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☒ Claim(s) *8-10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 April 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. In claim 6,

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato et al. (U. S. Patent No. 6, 333, 715) in view of Starck (U. S. Patent No. 6, 419,512).

As for claim 1, Kato et al. discloses a connecting sleeve (the combination of 2, 3, 4 and the insulating gas as shown in Figures 1-8), having inner and outer electrically conductive surfaces (the inner and outer electrically conductive surfaces of 2 and 3), wherein:

the connecting sleeve is an insulating material (insulating gas between 2 and 3, col. 3, lines 39-40) that is in the form of a tube (col. 3, lines 35-36; or see the tubular forms in Figures 1-8);

the outer, electrically conductive surface (the electrically conductive surfaces of 3) of the connecting sleeve is grounded (col. 3, line 36); and

the connecting sleeve has a sensor (partial discharge sensor 4) in the form of a coupling electrode (see sensor 4 in a form of a coupling electrode as shown in Figure 6) that is imbedded in the insulating material and electrically insulated from the inner and outer electrically conductive surfaces (conductive surfaces of 2 and 3) of the connecting sleeve.

Still referring to claim 1, Kato et al. discloses that the connecting sleeve is an insulating material (insulating gas between 2 and 3, col. 3, lines 39-40). Kato et al. does not specifically disclose that the insulating material is an elastic material.

Starck discloses a connecting sleeve (12) that is an insulating and elastic material, for the advantage of providing the capability of being compressed or stretched as required to obtain a sleeve of elastically adaptable length (col. 5, lines 19-23 and lines 34-35).

A person of ordinary skill in the art would find it obvious at the time the invention was made to modify Kato et al., to incorporate the use of an insulating, elastic material, as taught by Starck, for the purpose of providing a connecting sleeve that is capable of being compressed or stretched as required to obtain an elastically adaptable length (col. 5, lines 19-23 and lines 34-35).

As for claim 2, Kato et al. discloses that the sensor (partial discharge sensor 4) has a sensor surface that is tangential to the outer surface (see the tangential relationship of 4 and 3 as shown in Figure 6).

As for claim 3, Kato et al. discloses that the sensor (partial discharge sensor 4) has an edge area that overlaps the outer surface, at least in part (see the overlapping of 4 and 3 as shown in Figure 6).

As for claim 4, Kato et al. discloses that the sensor (partial discharge sensor 4) is connected to a plug connector (the part of coaxial cable 8 in the metallic vessel 3, col. 3, line 61) that is positioned in an opening (see the opening for receiving the part of cable 8 in metallic vessel 3, and for receiving the cable terminal 7 as shown in Figures 1-8) that is surrounded by the insulating material (insulating gas between 2 and 3).

As for claim 5, Kato et al. discloses that the plug connector (part of the coaxial cable 8 in the metallic vessel 3, col. 3, line 61) can be connected to a mating element (coaxial cable terminal 7, col. 3, lines 61-63); and in that the opening is matched to the outer shape of this mating element (7) so as to form a dust-proof plug-type connection (the opening is matched to the outer shape of the hermetically sealed terminal 7;the connection is hermetically sealed, see Figures 1-8).

As for claim 6, Kato et al. in view of Starck discloses a bus bar connection with the connecting sleeve of claim 1 (see Figures 1-8), which can be used to connect two switchboard sections of a gas-insulated switchboard system.

Note that the recitation " to connect two switchboard sections of a gas-insulated switchboard system" (on line 2) has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for

completeness but, instead, the process steps or structural limitations are able to stand alone. See In re Hirao, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and Kropa v. Robie, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Starck (U. S. Patent No. 6, 419,512), in view of Kato et al. (U. S. Patent No. 6, 333, 715).

As for claim 7, Starck discloses a gas-insulated medium-voltage switchboard system (in Figure 1), with at least two switchboard sections (3 and 3') that are connected to one another through a bus bar connection that incorporates a connecting sleeve (12), and wherein the connecting sleeve is an insulating, elastic material that is in the form of a tube (col. 5, lines 19-23).

Starck is silent on an outer, electrically conductive surface that is grounded; and that the connecting sleeve has a sensor in the form of a coupling electrode that is imbedded in the insulating material and electrically insulated from the inner and the outer electrically conductive surfaces of the connecting sleeve.

Kato et al. discloses an outer, electrically conductive surface (the electrically conductive surfaces of 3) of a connecting sleeve (the combination of 2, 3, 4 and the insulating gas as shown in Figures 1-8) is grounded (col. 3, line 36); and

the connecting sleeve has a sensor (partial discharge sensor 4) in the form of a coupling electrode (see sensor 4 in a form of a coupling electrode as shown in Figure 6) that is imbedded in the insulating material and electrically insulated from the inner and outer electrically conductive surfaces (conductive surfaces of 2 and 3) of the connecting sleeve.

A person of ordinary skill in the art would find it obvious at the time of the invention to modify Starck to disclose that an outer electrically conductive surface of the connecting sleeve is grounded; and that the connecting sleeve has a sensor in the form of a coupling electrode that is imbedded in the insulating material and electrically insulated from the inner and the outer electrically conductive surfaces of the connecting sleeve, as taught by Kato et al., for the purpose of sensing partial discharge signals in the gas insulated apparatus with a high sensitivity for a broad frequency band, and for performing potential measurement in the gas insulated apparatus with respect to ground (col. 6, lines 23-36).

Allowable Subject Matter

4. Claims 8-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 8-10 are allowable because none of the prior art discloses a connecting sleeve having a hollow center which encompasses a bus bar connection, and wherein the voltage potential of the bus bar is applicable to an inner, electrically conductive surface of the connecting sleeve, and in the combination as claimed.

Response to Arguments

5. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy He whose telephone number is (571) 272-2230. The examiner can normally be reached on 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on 571-272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amy He
Patent Examiner
AU 2858
April 4, 2007.